

Patent Abstracts of Japan

PUBLICATION NUMBER : 07130496
PUBLICATION DATE : 19-05-95

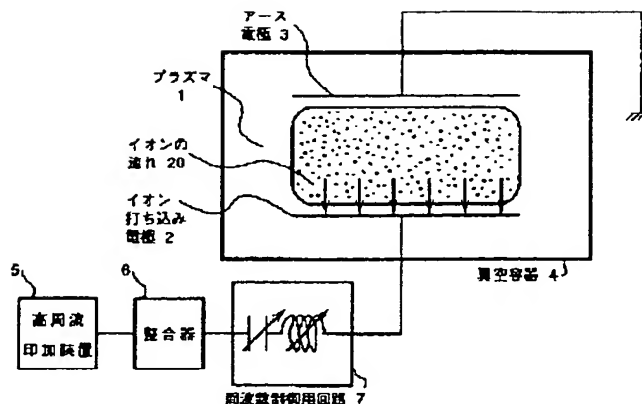
APPLICATION DATE : 02-11-93
APPLICATION NUMBER : 05274046

APPLICANT : HITACHI LTD;

INVENTOR : SUZUKI KAZUMICHI;

INT.CL. : H05H 1/46 C23C 14/48 H01J 27/18
H01J 37/08 H01J 37/317

TITLE : ION IMPLANTATION DEVICE



ABSTRACT : PURPOSE: To provide an ion implantation device in which a resonance frequency can be maintained and ion implantation can be efficiently performed even when plasma between electrodes is fluctuated.

CONSTITUTION: The frequency resonant to plasma 1 between an ion implantation electrode 2 and an earth electrode 3 is controlled, and the high frequency wave of the same frequency at all times is applied, thereby pulling out and implanting ions. In a high-frequency control circuit 7 for controlling the frequency resonant to the plasma between electrodes are provided with a variable capacitor and/or a variable coil between a matching device 6 and electrodes 2, 3 and also a circuit provided in series to the electrodes. Even when plasma density, electron temperature, ion temperature, the magnetic field intensity and the like are varied and consequently the resonance frequency between the electrodes is changed, the varying quantity thereof is compensated by the added variable capacitor and the added variable coil, so that the resonance may be maintained at the original frequency as it is.

COPYRIGHT: (C)1995,JPO

BEST AVAILABLE COPY